

# 2007-072-00 Lemhi River Restoration Accord Projects

Eagle Valley Ranch Fence (IDFG)

Little Springs Creek Channel Restoration (IDFG)

Bohannon Creek Diversion (IDFG)

Lemhi Little Springs Pivot and Ranch Road Culvert (Lemhi SWCD)

Archie Lane Project (Lemhi SWCD)

Parmenter Lane Project (Lemhi SWCD)

Wimpey Creek #2 (Trout Unlimited)

Upper Lemhi Channel Construction (IDFG)

Canyon Creek Bridge (Trout Unlimited)

Beyeler Sprinkler Modifications (IDFG)

Little Springs Creek Channel (IDFG)

Snyder Side Channel (IDFG)

L-50 and LSC-3 Diversion Removal, Pipeline and Sprinkler (Lemhi SWCD)

Hawley Creek Culvert to Bridge Replacements (Lemhi SWCD)

Fourth of July Creek Culvert to Bridge Replacements (Lemhi SWCD)

Agency Creek Culvert to Bridge (Lemhi SWCD)

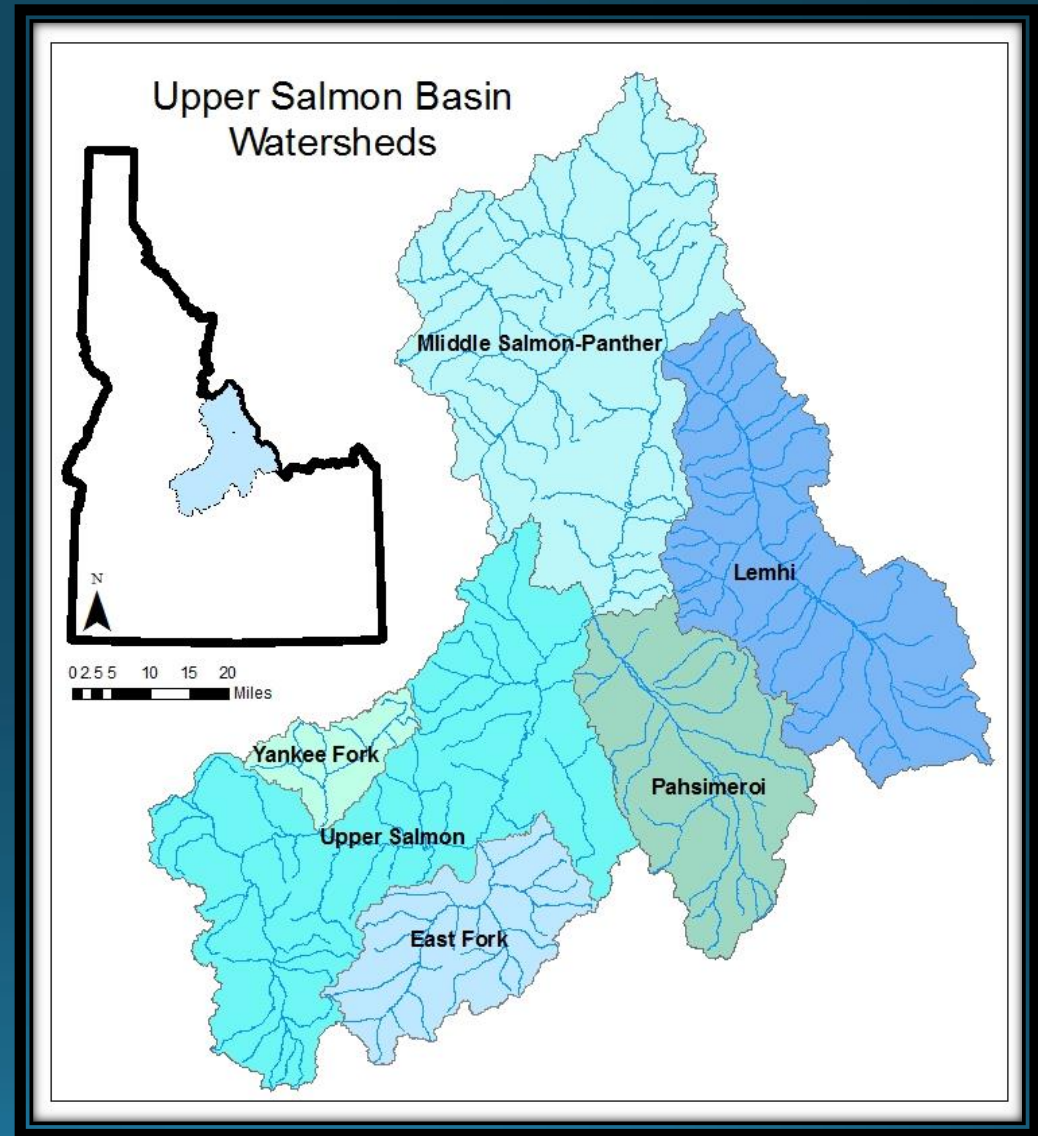
Big 8-Lee Creek Phase II (The Nature Conservancy)

# Upper Salmon Basin Watersheds

## Subbasins:

- Upper Salmon (1,547,982 acres)
- East Fork (353,340 acres)
- Yankee Fork (121,600 acres)
- Middle Salmon-Panther (1,163,102 acres)
- Lemhi (803,204 acres)
- Pahsimeroi (528,973 acres)

**4 ½ Million Acres**



# The Upper Salmon Basin

## LEGEND

- PRIVATE
- STATE OF IDAHO
- B.L.M.
- FOREST SERVICE





# Reconnections



## Bohannon Creek

- Additional Flow

## Kenney Creek

*Functional Reconnection*

## Agency Creek

- Flow
- Barriers/Screens

## Little Springs Creek

*Complete Restoration*

## Canyon Creek

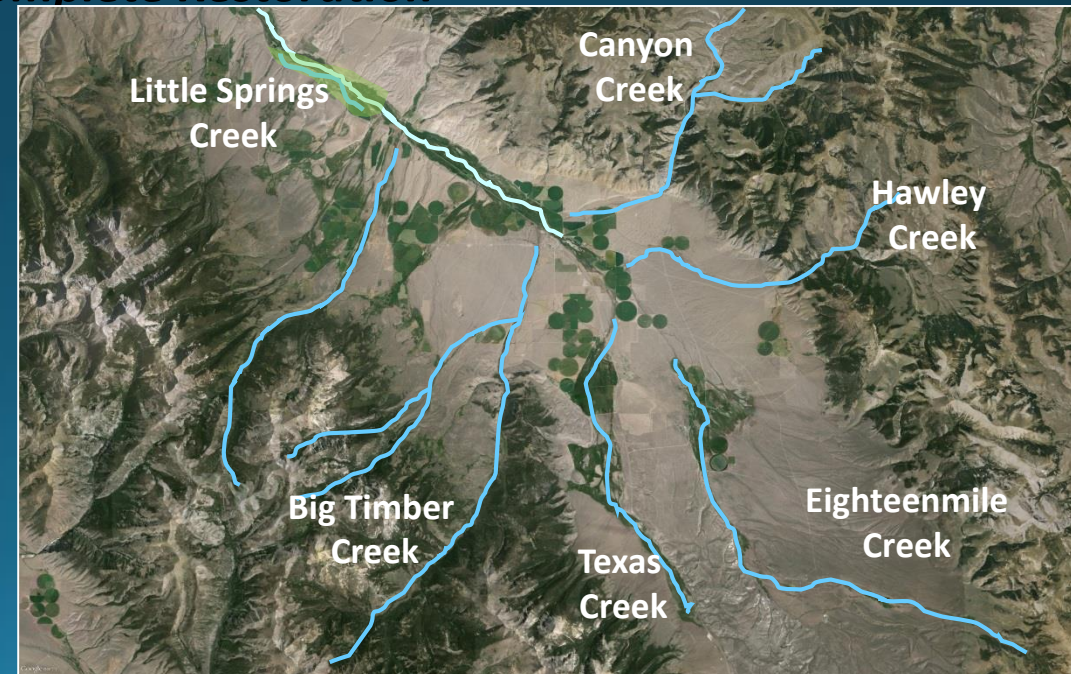
*Functional Reconnection*

## Big Timber Creek

- Diversions/Screens

## Hawley Creek

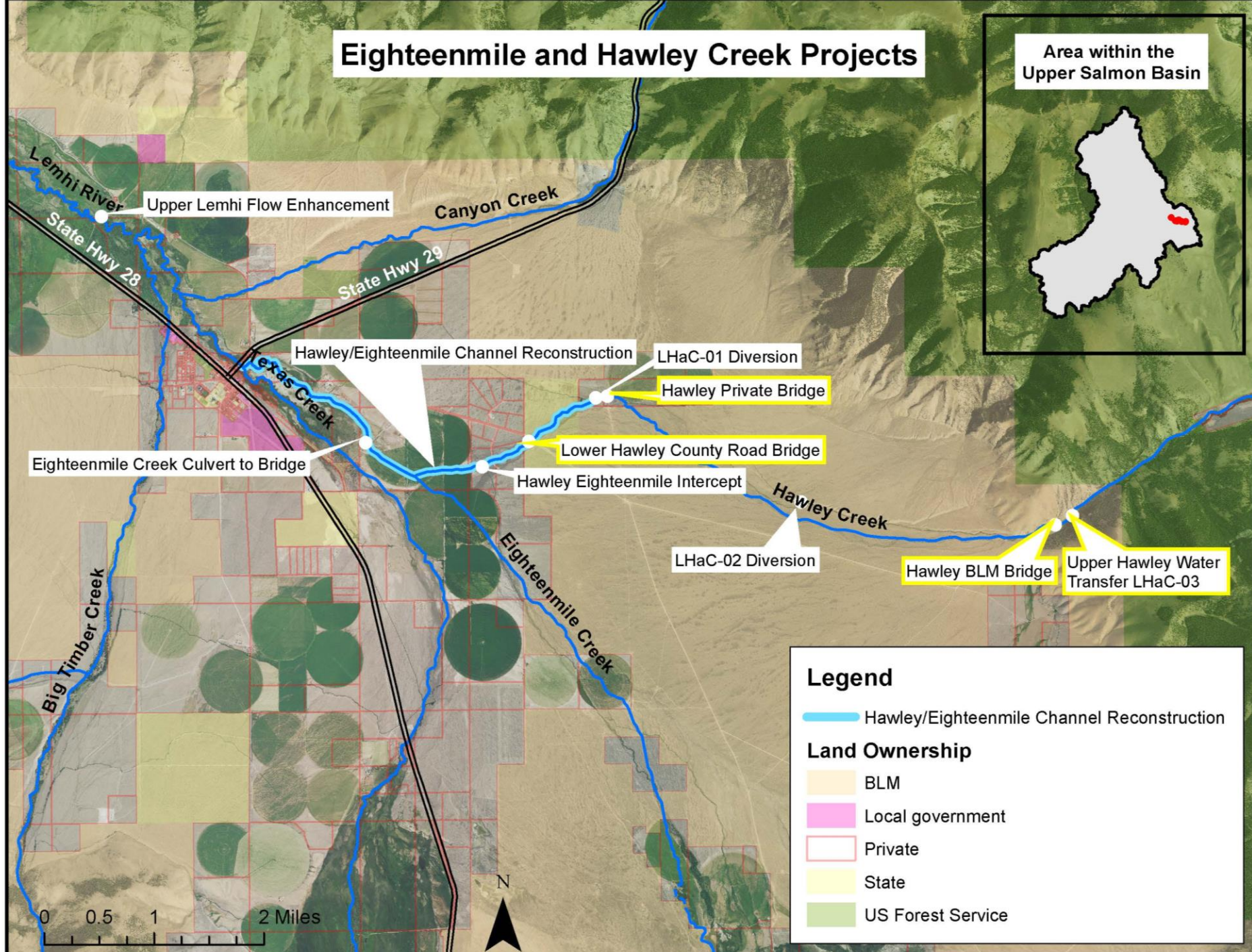
- Flow
- Barriers/Screens





# Eighteenmile and Hawley Creek Projects

Area within the  
Upper Salmon Basin



## Legend

Hawley/Eighteenmile Channel Reconstruction

### Land Ownership

- BLM
- Local government
- Private
- State
- US Forest Service



# 2011-14 Culvert to Bridge Projects

For NMFS Assessment Units LRC1, LRS1, LRS3

Snake River Spring/Summer Chinook  
LRC1 Disconnected Lehmi River tributaries and Carmen Cr

Snake River Steelhead  
LRS3 Other Salmon & Lemhi R. seasonally & disconnected tributaries  
LRS1 Carmen, Bohannon, Wimpy, Kenny Creeks

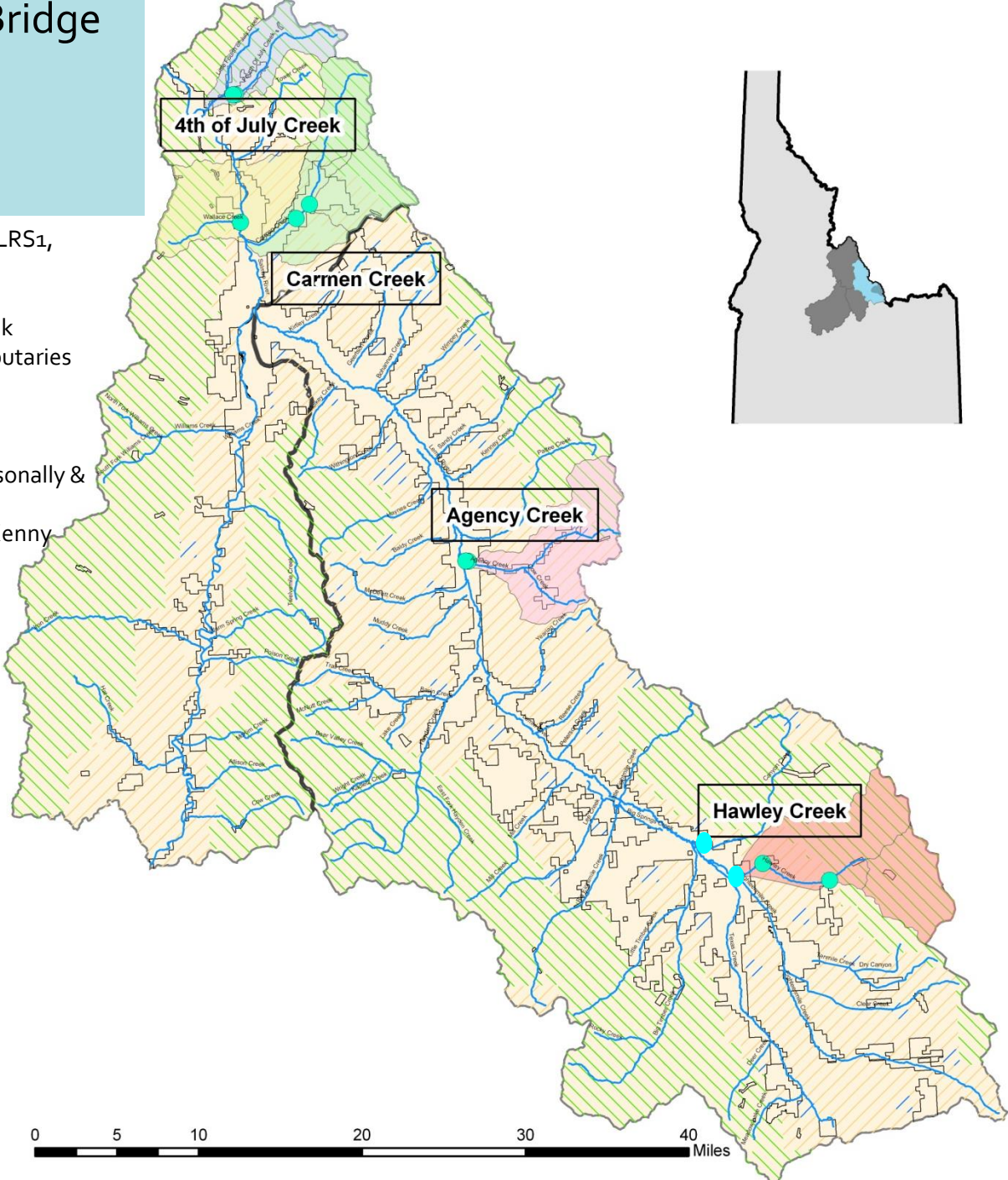
### Legend

- Culvert Replacement Projects
- Agency Creek
- Carmen Creek
- Fourth of July Creek
- Hawley Creek
- Wallace Creek
- Private Land

### LEMHI PARCELS

### OWNERSHIP

- PRIVATE
- State of Idaho
- BLM
- USFS



# Lemhi Little Springs Creek Diversion Closures - 2011

BPA Project # 2010-072-00: Contract # 48863

Objective: close three irrigation diversions (LSC-4,5,6) to improve stream flow, fish migration, and prevent fish entrainment in the unscreened diversions of Lemhi Little Springs Creek.

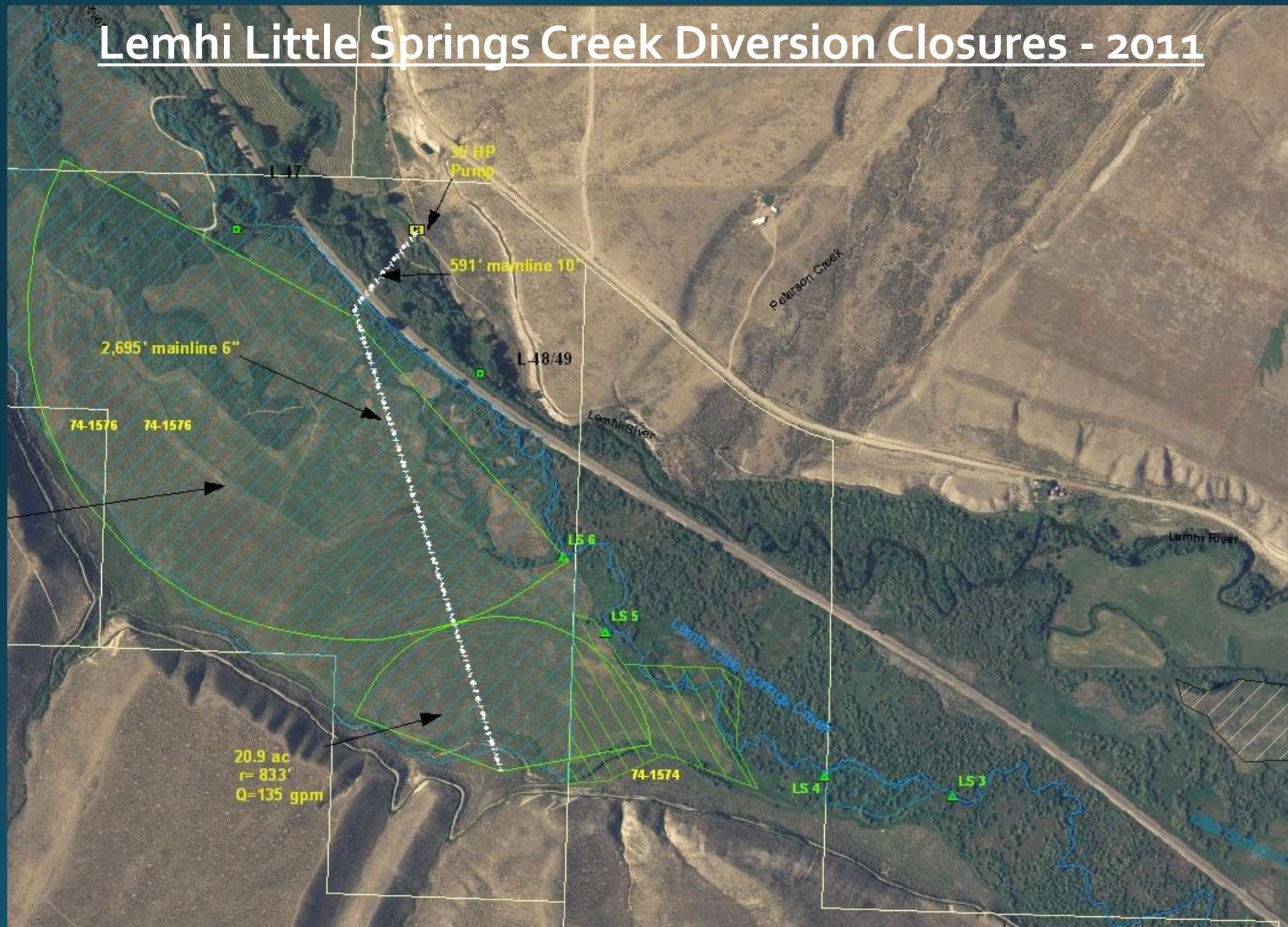
Transferred the point of diversion from Lemhi Little Springs Creek to Lemhi River L-48/49 diversion and converted from a flood irrigation system to a pivot sprinkler irrigation system to irrigate approximately 221 acres.

Outcome: The conversion to pivot sprinklers resulted in removal of 3 fish passage barriers and an additional 5.69 cfs flowing in Little Springs Creek.

Started: 4/25/2011; Completed: 5/31/2011; Cost: \$259,218



# Lemhi Little Springs Creek Diversion Closures - 2011





# Lemhi Little Springs Creek Diversion Closures - 2011

**Lemhi Little Springs diversion 4 before/after project**



**New pumping station in L48/49 and new pivot irrigation system**





# Carmen Creek Parmenter Road Culvert Replacement - 2011

BPA Project # 2010-072-00: Contract # 48863

Before



After





# Carmen Creek Archie Lane Culvert Replacement - 2011

BPA Project # 2010-072-00: Contract # 48863

Before



After





# Lower Little Springs Creek Fence-2011

BPA Project # 2010-072-00: Contract # 48863

Project installed approximately, 5,237 feet of 4-pole riparian jack fence  
Excluded domestic livestock access to a 16.5 acre riparian area  
along Little Springs and the Lemhi River





# Fourth of July Creek Culvert Replacement - 2012

BPA Project # 2010-072-00: Contract # 58410 ; PCSRF Project # 064 08

- Removed undersized culvert from Lemhi County road
- Replaced with a 32' x 50' prefabricated steel bridge
- Fish passage barrier removal provides 0.1 mile of access upstream to the next culvert, which was also replaced (fall 2012)
- Work completed by both the Lemhi County Road and Bridge Department and a local construction firm

Looking upwnstream





# Fourth of July Creek Private Culvert Replacement - 2012

BPA Project # 2010-072-00: Contract # 58410 ; PCSRF Project # 065 08

- Remove undersized culvert from private driveway
- Replace with a 16' x 30' prefabricated steel bridge
- Fish passage barrier removal provides 8.3 miles of access upstream
- Work completed by Boyd Foster Backhoe Service

Looking upwnstream





# Agency Creek County Culvert Replacement - 2012

BPA Project # 2010-072-00: Contract # 58410 ; PCSRF Project # 017 09

- Remove undersized concrete box culvert from county road
- Replace with a 28' x 30' prefabricated steel bridge
- Fish passage barrier removal provides 0.1 mile of access upstream to next barrier
- Work completed by Lemhi County Road and Bridge and a local construction firm

Looking Downstream





# Hawley Creek BLM Culvert Replacement - 2012

BPA Project # 2010-072-00: Contract # 58410 ; PCSRF Project # 016 09

- Remove undersized and perched culvert from county road
- Replace with a 24' x 45' prefabricated steel bridge
- Fish passage barrier removal provides 700' of access upstream to next barrier, which is being addressed in 2014
- Work was completed by a Probst Construction Company

Looking upstream before



Looking upstream after





# Hawley Creek Private Culvert Replacement - 2012

BPA Project # 2010-072-00: Contract # 58410 ; PCSRF Project # o66 o8

- Removed two undersized and perched culverts
- Replaced with a 24' x 35' prefabricated steel bridge
- Fish passage barrier removal provides 4.7 miles of access upstream to next barrier (Hawley Creek BLM culvert)
- Work completed by a local Boyd Foster Backhoe Service

Looking upstream before



Looking upstream after





# Canyon Creek Private Culvert Replacement - 2012





# L-50 Habitat Restoration & LSC-3 Diversion Removal - 2012

Project # 2010-072-00: Contract # 58410; PCSRF Project # 015 10

- Close Lemhi River L50 diversion and Lemhi Little Springs Creek LSC3 diversion, closing 4.3 miles of open ditch irrigation conveyance
- Transfer Point of Use for water right of 1.8 cfs to L46a to transport water into a pivot irrigation system for 49.2-acre field
- Remove L50 fish screen and eliminate need for additional fish screen
- Pivot irrigation system will use only 0.9 cfs
- Work completed by Two Dot Irrigation of Leadore.

LSC-03 Diversion Before

LSC-03 (eliminated)





# L-50 & LSC-3 Diversion Removal





# Lower Hawley Creek County Culvert Replacement - 2014

Project # 2010-072-00: Contract # 63697; PCSRF Project #

- Fish passage barrier removed
- Allows fish passage to 0.9 additional miles of habitat





# Upper Hawley Creek Water Rights Transfer Project- 2014

Project # 2010-072-00: Contract # 63697; PCSRF Project #

- Convert 2.1 miles of open ditch to a pipeline to increase the amount of instream flow for fish by 5.3 cfs
- Install four new pivots and 3.5 miles of irrigation pipeline





# Upper Hawley Creek Water Rights Transfer Project- 2014

- Idaho Department of Fish & Game installing a point-of-diversion fish screen and diversion structure for the intake of the pipeline from Hawley Creek





# Carmen Creek SCC<sub>3</sub> Flow Enhancement Project - 2014-15

Project # 2010-072-00: Contract # 63697; PCSRF Project #

- Two landowners to exchange point of diversion from Carmen Creek and pump water from alternate source
- Convert open ditch irrigation system to pivot sprinkler and K-Line system to improve water conveyance and distribution efficiency
- Additional 2.0 cubic feet per second left in stream will improve riparian function and fish migration





# Outcomes

- Thirteen projects were funded with BPA Accord funds through contract # 2010-072-00.
- Twelve of the thirteen projects funded by Accord funds addressed the limiting factor of fish access to habitat and provided an estimated 18.2 miles of additional upstream habitat.
- Four of the thirteen projects addressed the limiting factor of water quantity and conserved a total of 13.89 cfs.
- These four projects also addressed entrainment issues on unscreened ditches by either screening of the diversion or moving diversion points behind existing screens.
- In all fourteen barriers to fish passage were removed.
- In addition 1 mile of stream was protected by riparian fence protected 16.5 acres of riparian vegetation.